MESSUNG
AUTOMATION PEOPLE

NEW ARRIVAL !

Extended...
SMARTLINE Ex HMIs

Available with Connectivity to...
Messung and Mitsubishi FX PLC Series

पूर्णतः भारतीय उद्गम™

Messung Systems is certified for ISO 9001:2000 (Standard for Quality Management System)

TÜV CERT
ISO 9001 : 2000
Certificate:04100 20047173-E3

RWTÜV

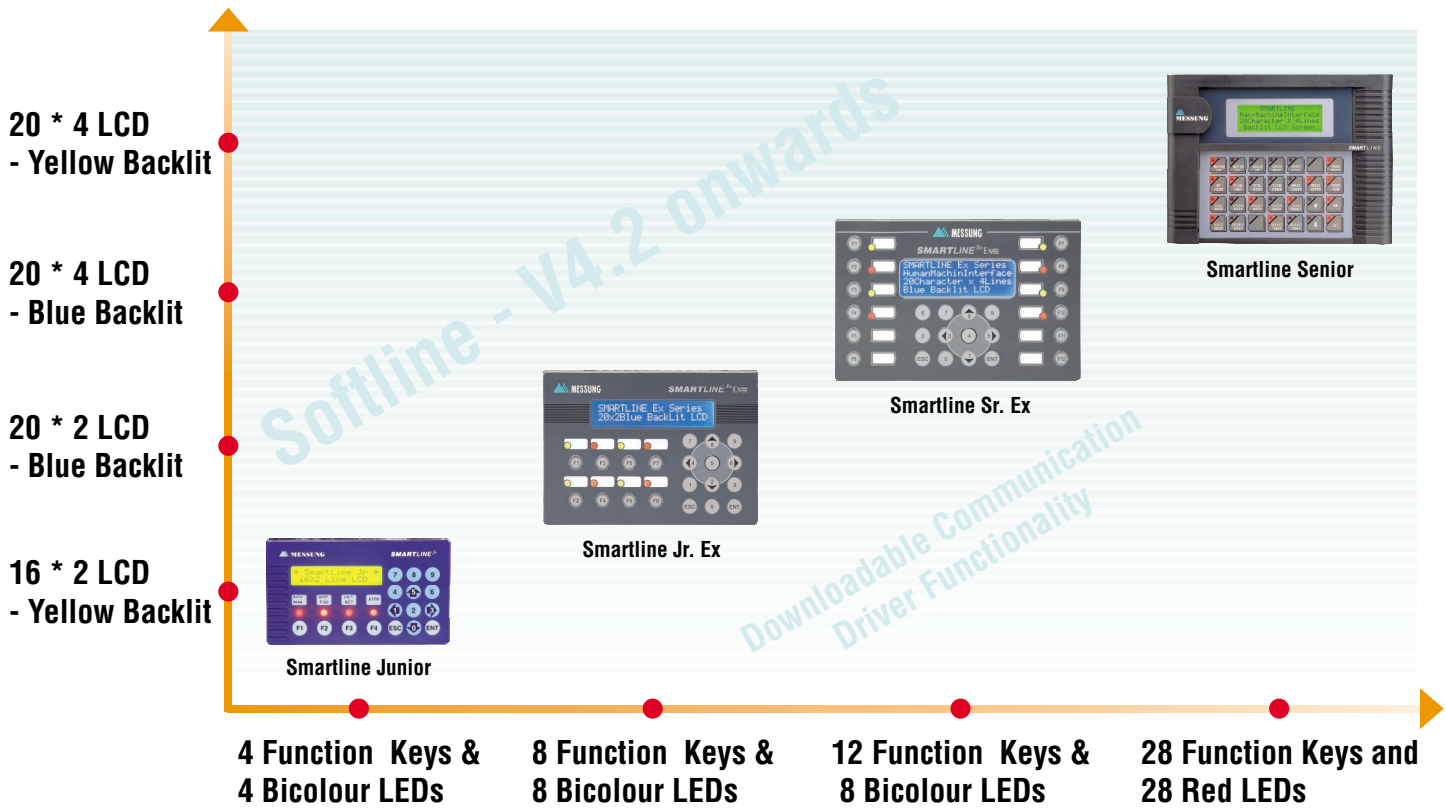
A new value addition to the SMARTLINE HMI series....

Messung, a pioneer in indigenous PLC technology, has continuously embarked on a path of innovation to design and produce the finest automation products in India. Our technical competence and diligence has complemented our vision of excellence, resulting in a wide array of versatile products complying with end-user requirements.

Messung now offers a value-addition to its acclaimed HMIs through the 'SMARTLINE-Ex' series of products.

The **SMARTLINE HMI Ex** is an advanced Microprocessor based system, which serially communicates with a Programmable Logic Controller. It is a Panel mounted, industrially hardened Operator Panel with choice of 20 ch * 4 Line Display & 20 ch * 2 Line Display: LCD (Blue Backlit with White Text)

HMI SERIES AT A GLANCE


20 * 4 LCD
- Yellow Backlit
20 * 4 LCD
- Blue Backlit
20 * 2 LCD
- Blue Backlit
16 * 2 LCD
- Yellow Backlit
Softline - V4.2 onwards
Downloadable Communication Driver Functionality
Smartline Junior
Smartline Jr. Ex
Smartline Sr. Ex
Smartline Senior
4 Function Keys & 4 Bicolour LEDs
8 Function Keys & 8 Bicolour LEDs
12 Function Keys & 8 Bicolour LEDs
28 Function Keys and 28 Red LEDs

SMART FEATURES

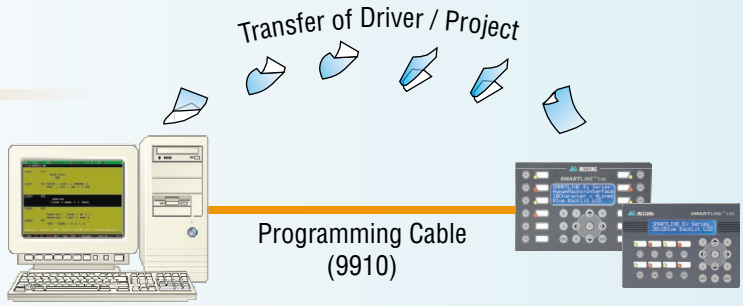
- **Keypad & Function Keys:**
  Numeric , Cursor & Definable Function Keys.
- **Communication Driver Update:**
  User can update Driver through SOFTLINE Software along with Application Project at any stage.
- **Function Key Legends:**
  Legends for the configurable function keys can be defined & replaced quickly.
- **Memory:**
  16 K Flash memory.
- **Excellent Viewing Characters:**
  Blue Backlit with white Text.
- **User Settable Back Lit On Time Out:**
  Supported.

User Friendly Software - "SOFTLINE":

- Menu - driven & user friendly Software.
- Allows addressing of Built-in LEDs mapped in PLC Logic.
- Facilitates message programming from 1 line to 4 lines .
- Comprehensive documentation facility.
- Driver update facility through SOFTLINE along with Application Program at any stage.
- Import of Messages from existing Program is supported.

PROGRAMMING KIT

- Software CD - SOFTLINE, HMI Ex Configuration Package
- Serial Link Programming Cable - 9910
- Manual - SOFTLINE & SMARTLINE HMI Ex



HARDWARE CONFIGURATION

Sr No.	Description	Ordering Code
1	SMARTLINE Jr. HMI Ex with 20 Ch.* 2 Line LCD (Blue Backlit)	SL Jr. Ex 2002
2	SMARTLINE Sr. HMI Ex with 20 Ch.* 4 Line LCD (Blue Backlit)	SL Sr. Ex 2004

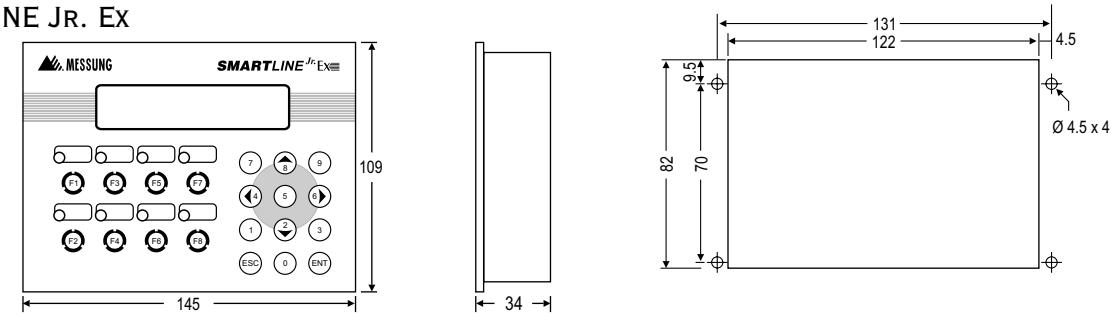
HMI Ex TO PLC LINK CABLE DETAILS

Sr No	Cable Description	Whenever ** = 03, 05,10,15,20,25 for 3 Mtr,5 Mtr,10 Mtr,15 Mtr,20 Mtr & 25 Mtr. respectively		
	HMI Sr/Jr Ex to PLC Link Cable	Link Cable Length	Interface	Remarks
1	HMI Sr/Jr Ex to XMP8 - 20 PLC	SL Sr / Jr Ex CAB ** 02	RS 485	Direct Connection to XMP 8 - 20 PLC
2	HMI Sr/Jr Ex to XMP8 -11/12/15/16 PLC	SL Sr / Jr Ex CAB ** 06	RS 485	Direct Connection to XMP8 -11/12/15/16 PLC & same cable ordering code with FX2N PLC
3	HMI Sr/Jr Ex to Nexgen 4000 & Nexgen 521X PLC	SL Sr / Jr Ex CAB ** 07	RS 422	Direct Connection to Nexgen 4000 PLC & Nexgen 5000 PLC (2nd port) with L type connector at PLC End
4	HMI Sr/Jr Ex to Nexgen 522X / 523X PLC	SL Sr / Jr Ex CAB ** 09 23	RS 422	Direct Connection to Nexgen 522X / 523X Series (2nd & 3rd port)
5	HMI Sr/Jr Ex to Mitsubishi FXON / FX 2N PLC	SL Sr / Jr Ex CAB ** 06	RS 422	Direct Connection to FX2N PLC & same cable ordering code with XMP8 -11/12/15/16 PLC

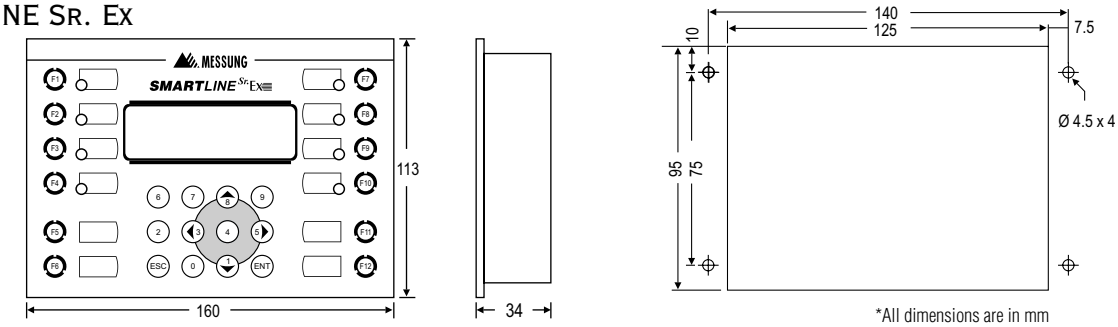
Note : PLC Link Cables are to be ordered separately as above

DIMENSION DETAILS FOR PANEL CUTOUT

SMARTLINE Jr. Ex



SMARTLINE Sr. Ex



*All dimensions are in mm

TECHNICAL SPECIFICATIONS FOR SMARTLINE SERIES HMIs

Specifications	**Smartline Junior**	**Smartline Jr. Ex**	**Smartline Sr. Ex**	**Smartline Senior**
Display	Yellow Backlit with Black Text Display	Blue Backlit with White Text Display	Blue Backlit with White Text Display	Yellow Backlit with Black Text Display
Presentation Form	Text	Text	Text	Text
Display Size	16 * 2	20 * 2	20 * 4	20 * 4
Character Size (W x H) mm	2.95 x 4.35	3.2 x 5.55	2.95 x 4.75	2.95 x 4.75
Backlit Life	50,000 Hrs	10,000 Hrs	10,000 Hrs	50,000 Hrs
Backlit Off / Screen Saver Mode	Not supported, Continuous ON	Yes (User Selectable)	Yes (User Selectable)	Not supported, Continuous ON
LEDs	4 LEDs (Bicolour)	8 LEDs (Bicolour)	8 LEDs (Bicolour)	28 LEDs (Red)
Function Keys	16 Keys - 12 Fixed + 4 Function Keys	20 Keys - 12 Fixed + 8 Function Keys	24 Keys - 12 Fixed + 12 Function Keys	28 Freely Programmable Keys
No. Of Key Operations	01 Million with 320 gmf	01 Million with 320 gmf	01 Million with 320 gmf	01 Million with 320 gmf
Mylar Texts : Legend	Legend strip for User function Texts	Legend strip for User function Texts	Legend strip for User function Texts	Complete Mylar as per User Texts
Password Protection	N.A.	3 Level Password Scheme (Global Log in)	3 Level Password Scheme (Global Log in)	3 Level Password Scheme (Global and Local Entry)
Memory for Application	8 K EEPROM	16 K Flash	16 K Flash	16 K EEPROM
Communication Interface	RS422, RS485 with 8 pin mini Din connector	RS232, RS422, RS485 with 9 pin D connector	RS232, RS422, RS485 with 9 pin D connector	RS232C, RS485 / 20mA current loop for PLCs with 9 pin D connector
Maximum Ambient Temperature	50°C	45 to 50°C	45 to 50°C	50°C
Protection Rating - IP 65	Yes	Yes	Yes	Yes
CE marking	Yes	Under process	Under process	No
Noise Immunity	IEC 1000-4-4 ,1KV on Serial Signals	IEC 1000-4-4 2KV on supply lines and 1KV on Serial Signals	IEC 1000-4-4 2KV on supply lines and 1KV on Serial Signals	IEC 1000-4-4 2KV on supply lines and 1KV on Serial Signals
Power Supply	4 to 16 V DC / 1.5 watts approx., via serial Port	18 to 30V DC, 24V DC @125 mA	18 to 30V DC, 24V DC @150 mA	24 V DC, +/ - 20 % @ 500mA (maximum)
Dimensions (W * H * D) mm	125 * 75 * 40	145 * 109 * 34	160 * 113 * 34	200 * 150 * 50
Panel Cut Out (W * H) mm	117 * 67 (+1 mm)	122 * 81 (+ 1 mm)	125 * 95 (+ 1 mm)	186 * 141 (+1 mm)
Mounting	Front Panel	Front Panel	Front Panel	Front Panel
PLC Connectivity	XMP8-40 , Mini , Micro , Nexgen & FX PLCs	Mini , Micro , Nexgen & FX PLCs	Mini , Micro , Nexgen & FX PLCs	XMP8-40, Mini , Micro , Nexgen & FX PLCs
Programming Cable	Molded Cable- PRG CAB 0300 + PRG CAB 04	Molded Cable-9910	Molded Cable-9910	Molded Cable- SLCAB 0300
Programming Tool	Softline - V4.02 Onwards	Softline - V4.2 Onwards	Softline - V4.2 Onwards	Softline - V4.02 Onwards
Communication Driver update	Factory fixed	On site update possible	On site update possible	Factory fixed
Max.Number Of Messages	256	256	256	256
Windows based PC - Link Utility	Supported	Supported	Supported	Supported
Net Weight (Kg)	0.4	0.48	0.54	0.72

Product development is a continuous process. Consequently, specifications are subject to change without prior notice. For latest information, please contact our nearest sales office.

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